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Anti-GRB10 (Phospho-Y67) Antibody

Catalog # AP51648

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q13322
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	67231

Additional Information

Gene ID	2887
Other Names	GRBIR; KIAA0207; Growth factor receptor-bound protein 10; GRB10 adapter protein; Insulin receptor-binding protein Grb-IR
Target/Specificity	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding Y67 of human GRB10 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

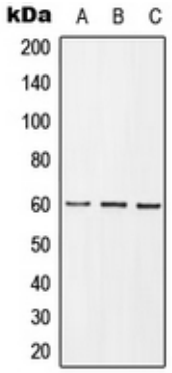
Name	GRB10
Synonyms	GRBIR, KIAA0207
Function	Adapter protein which modulates coupling of a number of cell surface receptor kinases with specific signaling pathways. Binds to, and suppress signals from, activated receptors tyrosine kinases, including the insulin (INSR) and insulin-like growth factor (IGF1R) receptors. The inhibitory effect can be achieved by 2 mechanisms: interference with the signaling pathway and increased receptor degradation. Delays and reduces AKT1 phosphorylation in response to insulin stimulation. Blocks association between INSR and IRS1 and IRS2 and prevents insulin-stimulated IRS1 and IRS2 tyrosine phosphorylation. Recruits NEDD4 to IGF1R, leading to IGF1R ubiquitination, increased internalization and degradation by both the proteasomal and lysosomal pathways. May play a role in mediating insulin-stimulated ubiquitination of INSR, leading to proteasomal degradation. Negatively regulates Wnt signaling by interacting with LRP6 intracellular portion and

	interfering with the binding of AXIN1 to LRP6. Positive regulator of the KDR/VEGFR-2 signaling pathway. May inhibit NEDD4-mediated degradation of KDR/VEGFR-2.
Cellular Location	Cytoplasm. Note=When complexed with NEDD4 and IGF1R, follows IGF1R internalization, remaining associated with early endosomes. Uncouples from IGF1R-containing endosomes before the sorting of the receptor to the lysosomal compartment (By similarity).
Tissue Location	Widely expressed in fetal and adult tissues, including fetal and postnatal liver, lung, kidney, skeletal muscle, heart, spleen, skin and brain.

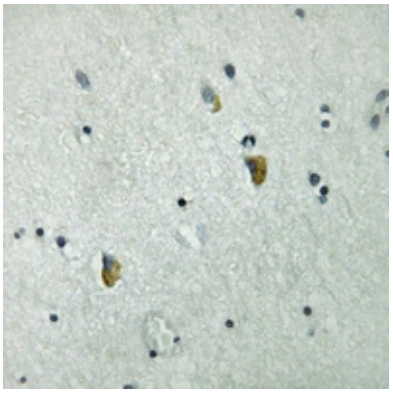
References

Liu F.,et al.Proc. Natl. Acad. Sci. U.S.A. 92:10287-10291(1995).
O'Neill T.J.,et al.J. Biol. Chem. 271:22506-22513(1996).
Frantz J.D.,et al.J. Biol. Chem. 272:2659-2667(1997).
Dong L.Q.,et al.J. Biol. Chem. 272:29104-29112(1997).
Nantel A.,et al.J. Biol. Chem. 273:10475-10484(1998).

Images

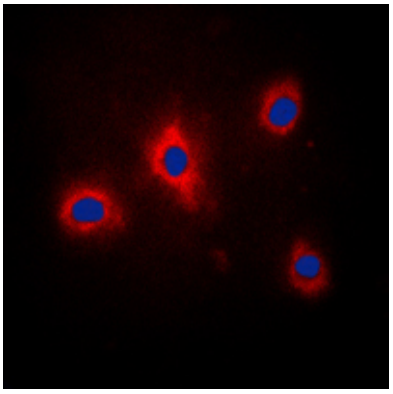


Western blot analysis of GRB10 (Phospho-Y67) expression in HEK293T insulin-treated (A), mouse spleen (B), PC12 insulin-treated (C) whole cell lysates. (Predicted band size: 67 kD; Observed band size: 70 kD)



Immunohistochemical analysis of GRB10 (Phospho-Y67) staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of GRB10 (Phospho-Y67) staining in PC12 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary



antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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